



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
Minerals & Mining Program - Oil & Gas Section
2050 West Main, Suite #1, Rapid City, SD 57702-2493
Telephone: 605-394-2229, FAX: 605-394-5317

FORM 2

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DEPT OF ENVIRONMENT & NATURAL
RESOURCES - RCRO

APPLICATION FOR PERMIT TO DRILL

Type of work: <input checked="" type="checkbox"/> Drill New Well Reenter Well <input checked="" type="checkbox"/> Drill Directional Well Other _____		Type of well: <input checked="" type="checkbox"/> Oil Well Gas Well Injection <input checked="" type="checkbox"/> Other <u>Horizontal</u>			
Name and Address of Operator: LUFF EXPLORATION COMPANY 1580 LINCOLN ST. SUITE 850 DENVER, CO		Telephone 303-861-2468			
Name and Address of Surface Owner: STEARNS BROTHERS, LLC 203 3 RD AVE. SW, BOWMAN, ND 58623					
Name and Address of Drilling Contractor and Rig Number: NABORS DRILLING USA, WILLISTON, ND AND C&H WELL SERVICE, GILLETTE, WY.					
Surface Location of well: Qtr-Qtr, Sec, Twp, Rge, County, feet from nearest lines of section, and latitude and longitude (if available): SENE SEC. 18-22N-4E HARDING CO. 1500' FNL & 200' FEL					
If Directional, top of pay and bottom hole location from nearest lines of section: RED RIVER TOP @ 8955'MD=8904'TVD; EAST LEG 1500' FNL & 3000' FWL SEC. 17; WEST LEG 1500' FNL & 3400' FEL SEC. 18					
Acres in Spacing (Drilling) Unit 637.15		Description of Spacing Unit N/2 Sec. 17 & N/2 Sec. 18			
Well Name and Number STEARNS H-18H		Elevation 3216.6 GRD Un-graded	Field and Pool, or Wildcat N. BUFFALO - RED RIVER FM	Proposed Depth and Formation 9000'MD=9000'TVD - RED RIVER B	
Size of Hole	Size of Casing	Weight per Foot	Depth	Cementing Program (amount, type, additives)	Depth
1) 7 7/8	8 3/4	24	2000	600 Lite and 200 Class G	Surface
2) 7 7/8	5 1/2	15.5, 17, 23	9000	240 sx Lite and 400 sx Premium	4300
Describe Proposed Operations (Clearly State all Pertinent Details, and Give Pertinent Dates, Including Estimated Date of Starting any Proposed Work). Use additional page(s) if appropriate. Drill a vertical well to approx. 9000'. DST the Red River B zone and run logs at TD. Run and cement 5 1/2" csg. Move in smaller rig. Mill csg. window from 8800'-8807' w/azimuth of 270 deg. Drill short radius curve and land in the Red River B zone at 8955'MD=8904'TVD. Drill 4 1/2" horizontal lateral to TD of 12065'MD=8904'TVD and BHL 1500' FNL & 3400' FEL of Sec.18. Mill second window from 8783'-8790' w/ azimuth of 90 deg. Drill short radius curve and land in Red River B at 8966'MD=8904'TVD. Drill 4 1/2" horizontal lateral to TD of 12,057'MD=8904'TVD at BHL 1500' FNL & 3000' FWL Sec. 18. See attached directional drilling plan. Oil base mud will be used to drill the vertical hole and fresh water/polymer fluid to drill the horizontal laterals. All drilling fluids will be contained in a 12 mil lined pit. Cuttings and liner will be buried in place. Completion will be through open hole. Anticipate starting operations in late May, 2004.					
I hereby certify that the foregoing as to any work or operation performed is a true and correct report of such work or operation.					
Signature <i>Robert C. Arceneaux</i>		Name (Print) Robert C. Arceneaux		Operations Mgr. SOUTH DAKOTA 5-4-04 STATE GEOLOGICAL SURVEY WESTERN FIELD OFFICE Date	

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Approved By: <i>And Justice</i>	Title: <u>Oil & Gas Supervisor</u>	
Permit No. <u>1710</u>	API No. <u>40 063 20581</u>	Date Issued: <u>05/20/2004</u>
Conditions, if any, on attached page.		